NATIONAL OCEAN INDUSTRIES ASSOCIATION

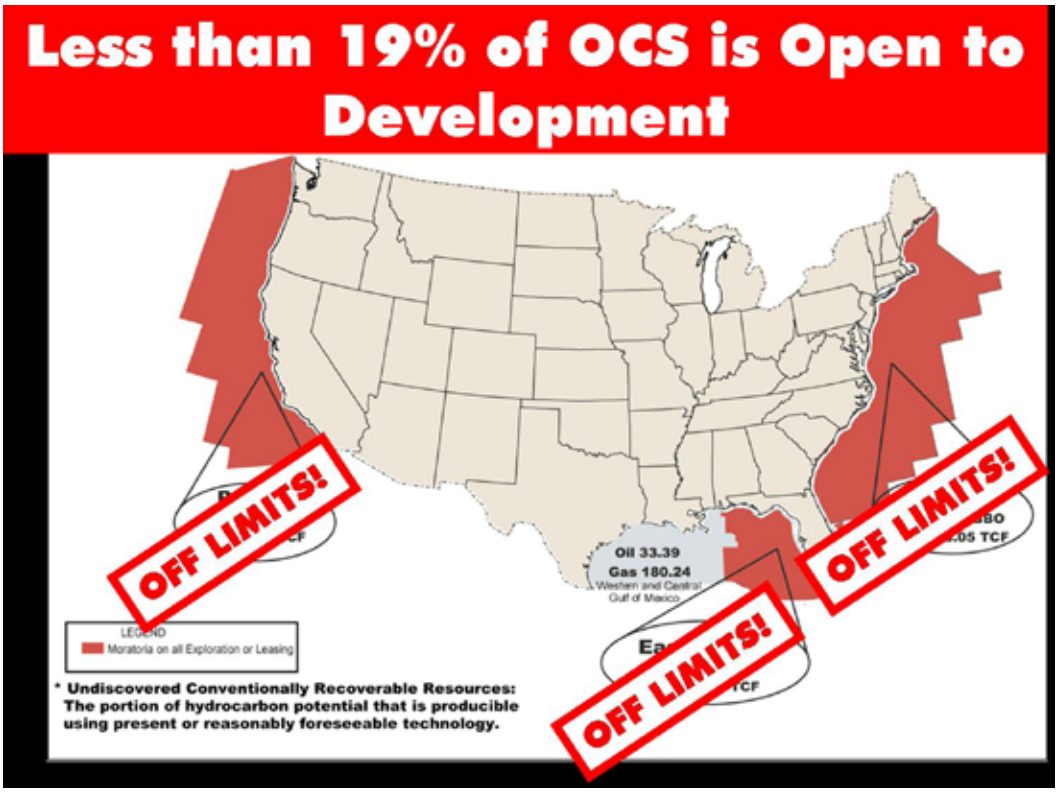
# ENERGY CHALLENGES FOR WYOMING AND THE NATION

**NOIA'S MISSION IS TO SECURE RELIABLE ACCESS TO THE NATION'S VALUABLE OFFSHORE ENERGY RESOURCES IN ORDER THAT THEY MAY BE DEVELOPED, PRODUCED AND SUPPLIED IN AN ENVIRONMENTALLY RESPONSIBLE MANNER.**

Today, energy prices are on the rise across the nation. This affects individual citizens, industrial consumers, and the agricultural industry. But why is this so?

It all comes back to supply and demand. As the economy has grown, the demand for energy has grown every year. At the same time, however, policymakers have refused to make any changes to increase available supplies of energy. For example, over 80% of the nation's oil and natural gas resources on the Outer Continental Shelf is completely off-limits to exploration and production, despite a decades-long record of safe offshore production in the Central and Western Gulf of Mexico.

What can be done? Energy consuming states must make themselves heard and push for changes to policies like this that limit energy supply. This is key to long-term strategies to control prices and maintain economic growth and employment at home.

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## ENERGY PRICES: A NATIONAL PERSPECTIVE

- In the last 25 years, our energy consumption has grown by 30 percent, while supply only increased at half that rate. In just the past decade, as our economy grew, energy consumption increased by more than 12 percent. But our domestic production increased by less than one-half of 1 percent.

- Between now and 2030 – less then 25 years from now– we will need 55 percent more electricity than we generate today and consumption of all sources of energy are expected to increase:
  *o Petroleum by 41 percent*
  *o Natural gas by 33 percent*
  *o Coal by 41 percent*
  *o Renewable energy by 39 percent*

- The Energy Information Administration predicted on Jan. 11 that the average U.S. home heating bill in 2006 will increase by $257, or 35 percent, for natural-gas heat; $275, or 23 percent, for oil heat; and $184, or 17 percent, for propane heat.

- The price of U.S. natural gas has hit peaks recently of now about $15/million btu's, the rough equivalent of paying $7 a gallon for gasoline.
  - *This is more than double what they pay in China, and 50 percent higher than prices in the United Kingdom. The U.S. price is 20 times what Saudi Arabians pay.*

- High energy prices, particularly for natural gas, have cost the economy 2.8 million jobs since 2000.

- More than 100,000 lost jobs in the chemical industry, and the closure of 70 chemical facilities in 2004 alone, have resulted from high prices of natural gas.

- During the 2003 and 2004 growing seasons, farmers paid more than $6 billion in added energy-related expenses, a 41% increase over 2004, according to USDA's Economic Research Service.

# AN ENERGY PLAN OF ACTION FOR WYOMING

## WYOMING ENERGY CONSUMPTION:

- Wyoming spends almost $3 billion each year on energy, ranking 42nd nationally in total energy consumption.
- In 2004, Wyoming's consumption by sector was: 54% industrial, 26% transportation, 11% commercial, and 9% residential.
- Between 1980 and 2001, Wyoming's electricity consumption increased by nearly 6 billion kilowatt-hours, averaging a 2.9% increase year-over-year.
- Coal fuels 97% of Wyoming's electricity generation, followed by hydropower (2%), wind (1%), and natural gas (1%).
- Natural gas demand in the Mountain Census Region – Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, and Wyoming – will remain high, increasing by 2.9% from 2.45 Bcf per day in 2007 to 2.52 Bcf per day in 2008.

## WYOMING ENERGY RESOURCES AND PRODUCTION:

- Wyoming's major geologic basins contain some of the largest fossil fuel deposits in the Untied States. The State's coal reserves are second only to Montana's, its natural gas reserves are second only to Texas', and its crude oil reserves are among the largest in the Nation.
- Currently, the State ranks 7th nationally in the production of crude oil, with more than 10,000 wells producing more than 52 million barrels of oil. Wyoming ranks 2nd nationally in the production of natural gas, with more than 23,000 wells producing more than 2 trillion cubic feet of natural gas.
- Wyoming has an estimated 700 million barrels of crude oil reserves and more than 23 trillion cubic feet of natural gas reserves.
- Wyoming has more than a dozen of the Nation's largest oil and gas fields, including the Pinedale and Jonah natural gas fields.
- Wyoming accounts for almost one-tenth of U.S. natural gas production, with most of that coming from fields in the Greater Green River Basin. The State also ranks third among the Nation's coalbed methane producers, trailing only Colorado and New Mexico.
- The Powder River Basin in northeastern Wyoming is the largest coal-producing region in the Nation, accounting for nearly 40% of all coal mined in the U.S. In 2005, the State produced more than 400 million tons of coal, and reserves are estimated at nearly 8 billion tons.
- Coal from the Powder River Basin has lower sulfur content than other coal varieties, making it attractive for electricity generators that must comply with strict emission standards.
- More than 30 states receive coal from Wyoming, and several Midwestern and Southern states are highly dependent on those supplies.
- Wyoming's oil shale deposit, concentrated in the Green River and Washakie Basins in the southwestern part of the

State, contain an estimated 300 billion barrels of oil – equal to about one-fourth of the world's proven oil reserves.
- The State has five oil refineries with a combined capacity of 153,000 barrels of crude oil per day.

## WYOMING ALTERNATIVE / RENEWABLE ENERGY:

- In 2005, the Western Governors Association launched the "Clean and Diversified Energy Initiative for the West." Wyoming's governor is one of four lead governors for the project, along with the governors of California, New Mexico and North Dakota. The initiative's main goals are to develop 30,000 megawatts of clean energy in the West by 2015 and to increase energy efficiency by 20% by 2020.
- Most of Wyoming's wind power facilities are in the southeastern part of the State, but its largest wind facility is located in the southwestern corner of the State.

## INCREASING ENERGY PRICES HURT MANUFACTURING INDUSTRIES, IMPERILING WYOMING JOBS:

- As of November 2006, Wyoming was home to approximately 10,000 manufacturing jobs paying employees an average of $40,500 per year, 24% higher than the average for the State. In many other states, rising energy prices have brought about the demise of substantial numbers of these jobs.
- Chemical manufacturing – which depends on natural gas as a critical input – accounted for $515 million in Wyoming exports and directly supported nearly 1,500 jobs in 2005. These jobs, however, are now in jeopardy due to the high price of natural gas.
- Wyoming has more than 10 million acres of forested land, and its forest products industry employs approximately 2,000 workers with an annual payroll exceeding $42 million.
- Today, energy is the third largest manufacturing cost, at 18%, for the forest products industry, eclipsing even employee compensation.
- Nationally, more than 230 forest products mills have closed and 180,000 jobs – 12% of the industry's national employment – have been lost since 2000, when energy prices started to rise. Likewise, many of Wyoming's paper and wood manufacturing jobs are endangered by the high price of natural gas.

## INCREASING ENERGY PRICES SQUEEZE INDIVIDUAL CONSUMERS:

- According to the Wyoming Public Service Commission, in 2005, average monthly utility bills for Wyoming residential customers increased by more than 10% from 2004 levels to $153.87.
- Home heating costs have risen significantly, regardless of the energy source used. Natural gas accounts for heating 64% of Wyoming's homes, followed by electricity (19%), liquefied petroleum gas (11%), and other sources (6%).
- In 2006, Congress and the State provided home heating assistance to more than 11,000 Wyoming households, a 22% increase from 2005.

## INCREASING ENERGY PRICES SQUEEZE FARMERS AND AGRICULTURAL INDUSTRIES:

- Wyoming is home to more than 9,000 farms and ranches, covering more than 34 million acres, providing more than 17,000 jobs, and generating more than $965 million in farm receipts in 2005.
- The cattle industry is by far the largest contributor to agricultural receipts, accounting for about three-fourths of all 2005 revenues ($718 million). Hay is the leading crop grown in Wyoming, accounting for more than $40 million in cash receipts.
- Increasing energy costs – in the form of higher prices for transportation, electricity, and related costs in the feed and ingredient processing industries – have resulted in dramatic changes in the feed and cattle industries. For example, corn, the most popular feed grain, requires large amounts of fertilizer and irrigation water, both of which are sensitive to energy costs.
- Agricultural production uses energy directly in grain production, drying, and marketing, and indirectly through many of the purchased inputs such as fertilizer and agricultural chemicals.
- The Economic Research Service of the United States Department of Agriculture estimates that principal crop related expenses in 2007 – seeds, fertilizers, and pesticides – will be $36.1 billion, up 5% from 2006. This would be the fourth straight increase of $1.8 billion or more.

## A PLAN OF ACTION:

What can be done to increase energy supplies?

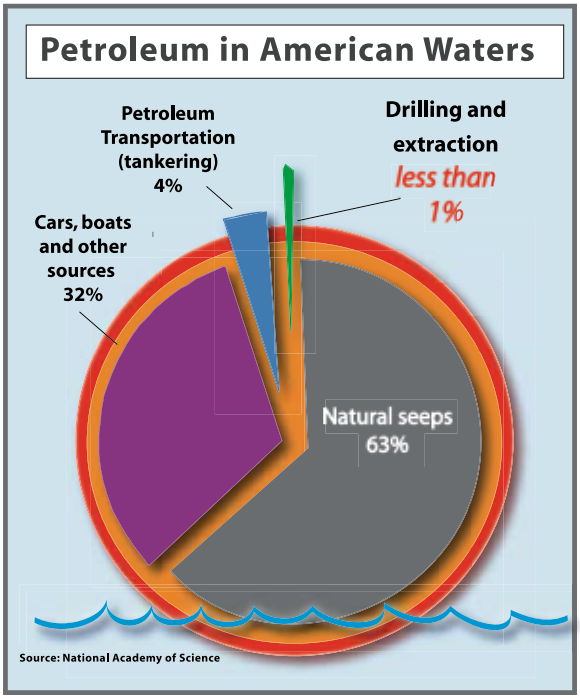
- Call on Congress and the Administration to cultivate a plentiful, diverse and affordable energy supply for America.

- Pursue renewable technologies such as offshore wind and tidal power and the development of offshore methane hydrates.

- Promote energy conservation and greater efficiency.

- Increase refining capacity and import facilities.

- Provide access to the Outer Continental Shelf (OCS) for exploration and development of the nation's valuable offshore energy resources in an environmentally responsible manner. Over 80 percent of all federally controlled coastal waters are currently off-limits to energy exploration and production, yet the OCS is conservatively estimated to hold over 419 trillion cubic feet of technically recoverable natural gas resources and 86 billion barrels of oil. This is enough:
  - natural gas to heat 100 million homes for 60 years.
  - oil to drive 85 million cars for 35 years.
  - oil to replace current Persian Gulf imports for 59 years.




**Offshore drilling is safe: Less than 1% of oil found in the ocean comes from offshore production, significantly less than results from natural geologic seeps and run-off from land-based sources**